

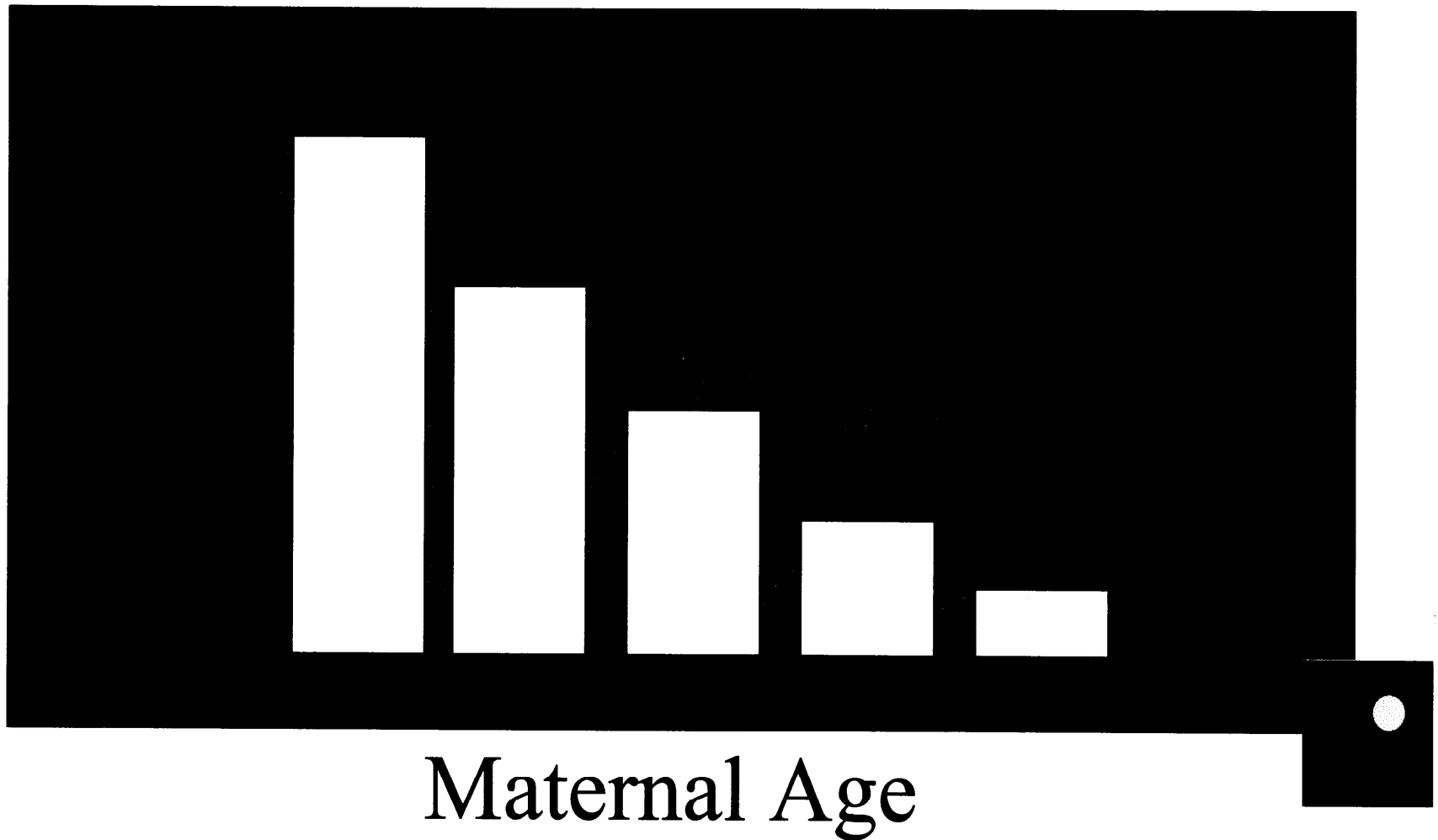
3855S1-03

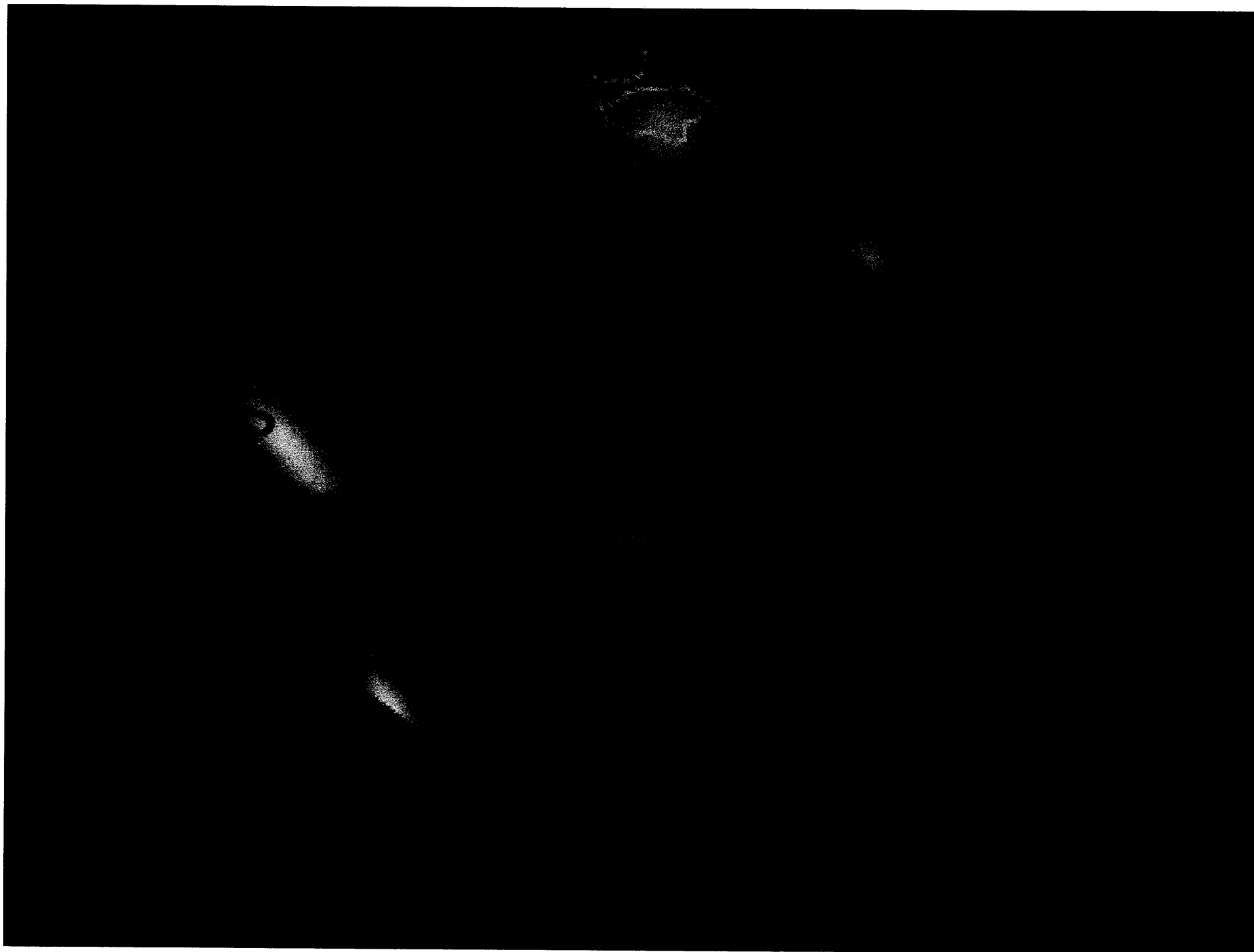




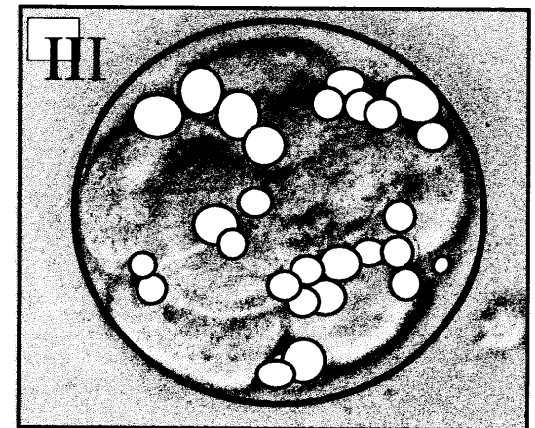
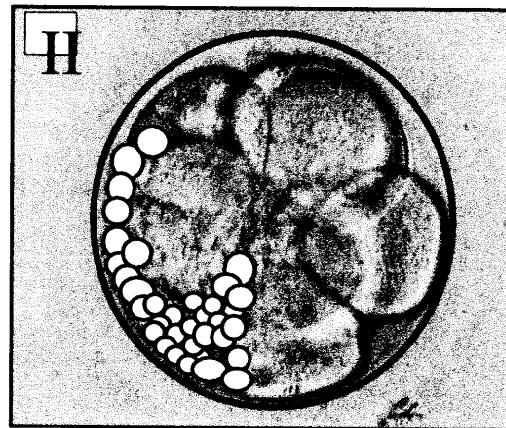
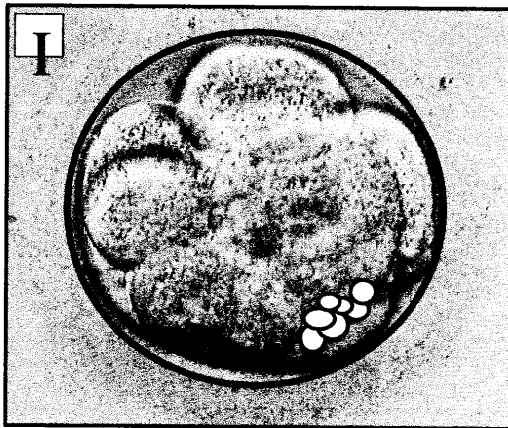
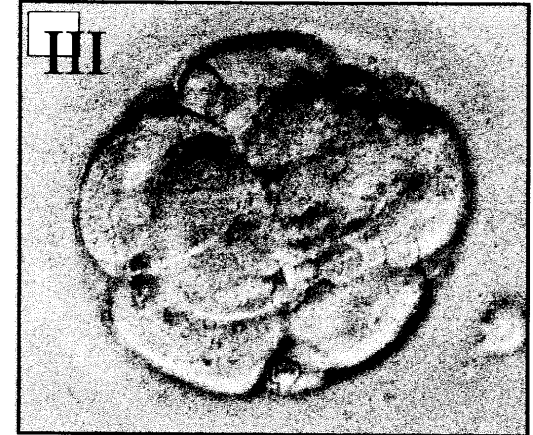
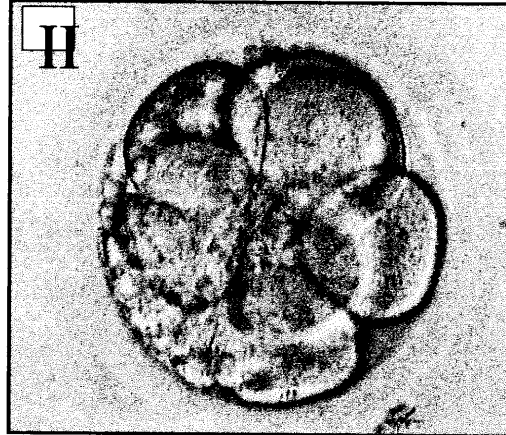
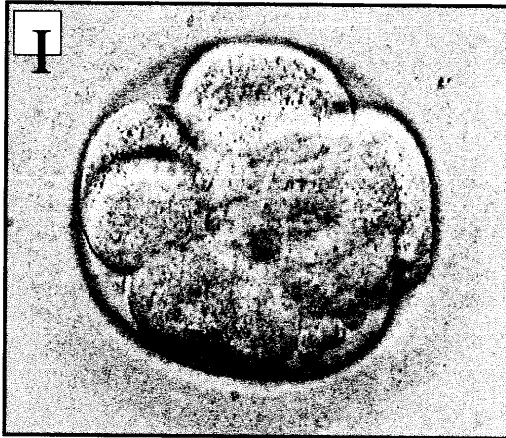
Implantation Rate After Aneuploidy Testing

%

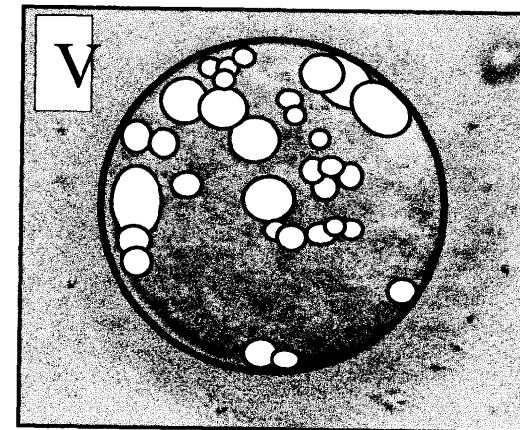
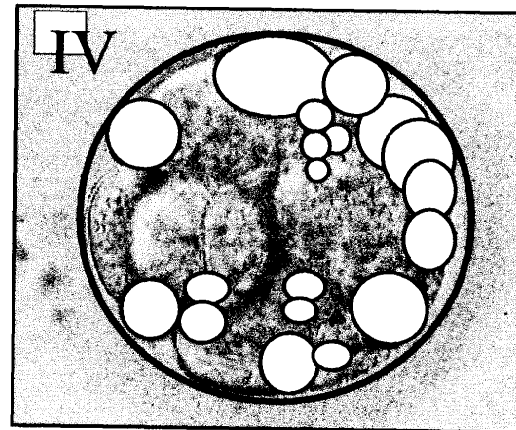
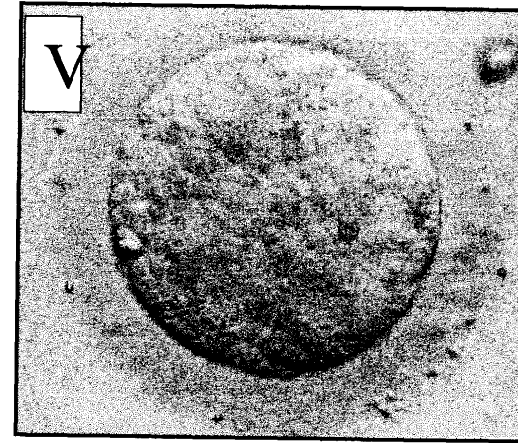
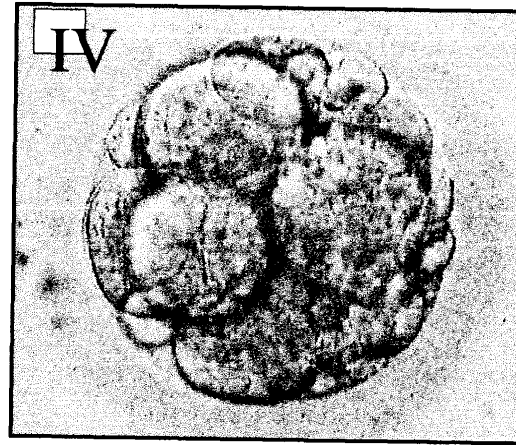




CELLULAR FRAGMENTATION



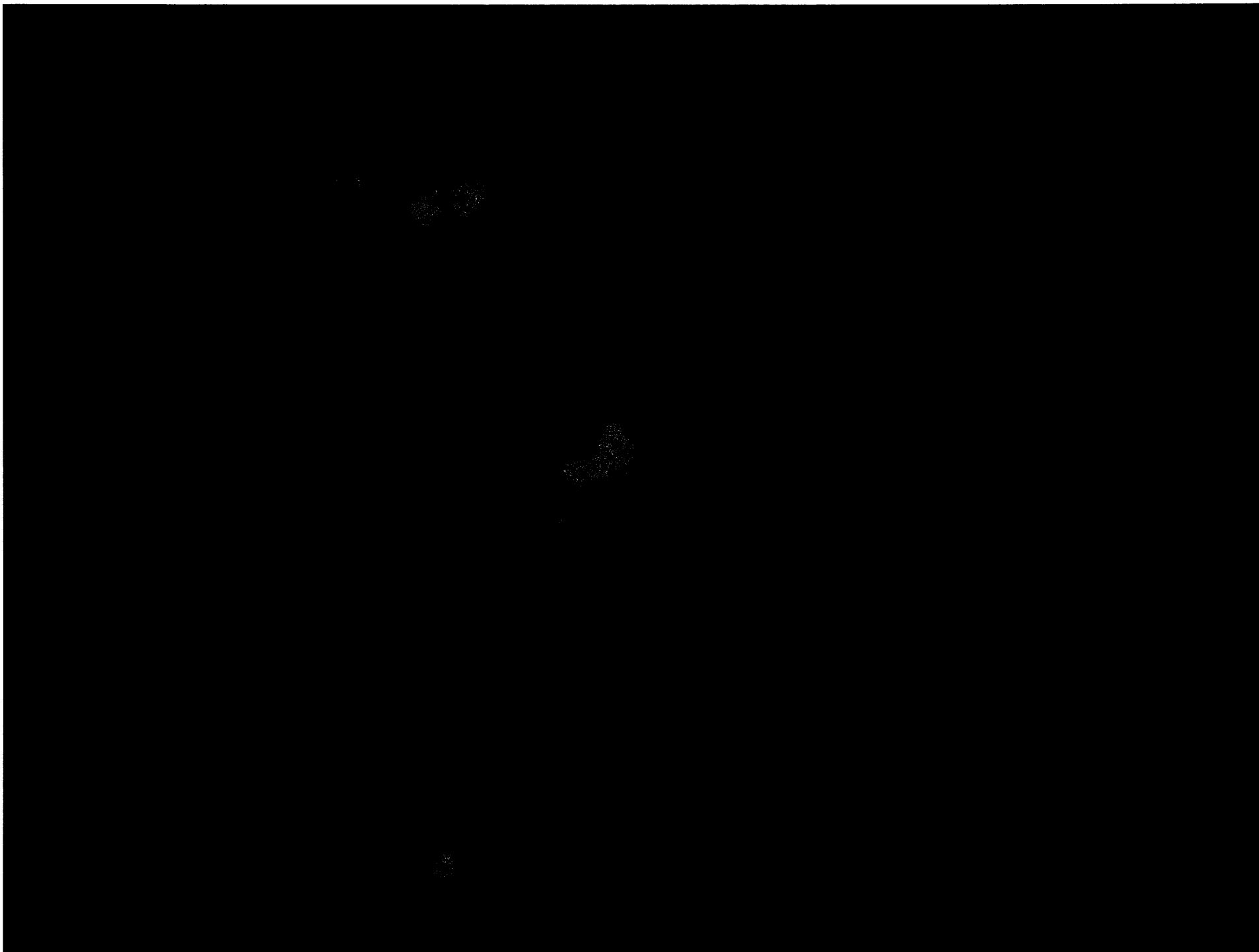
Alikani et al, 1995, 1999



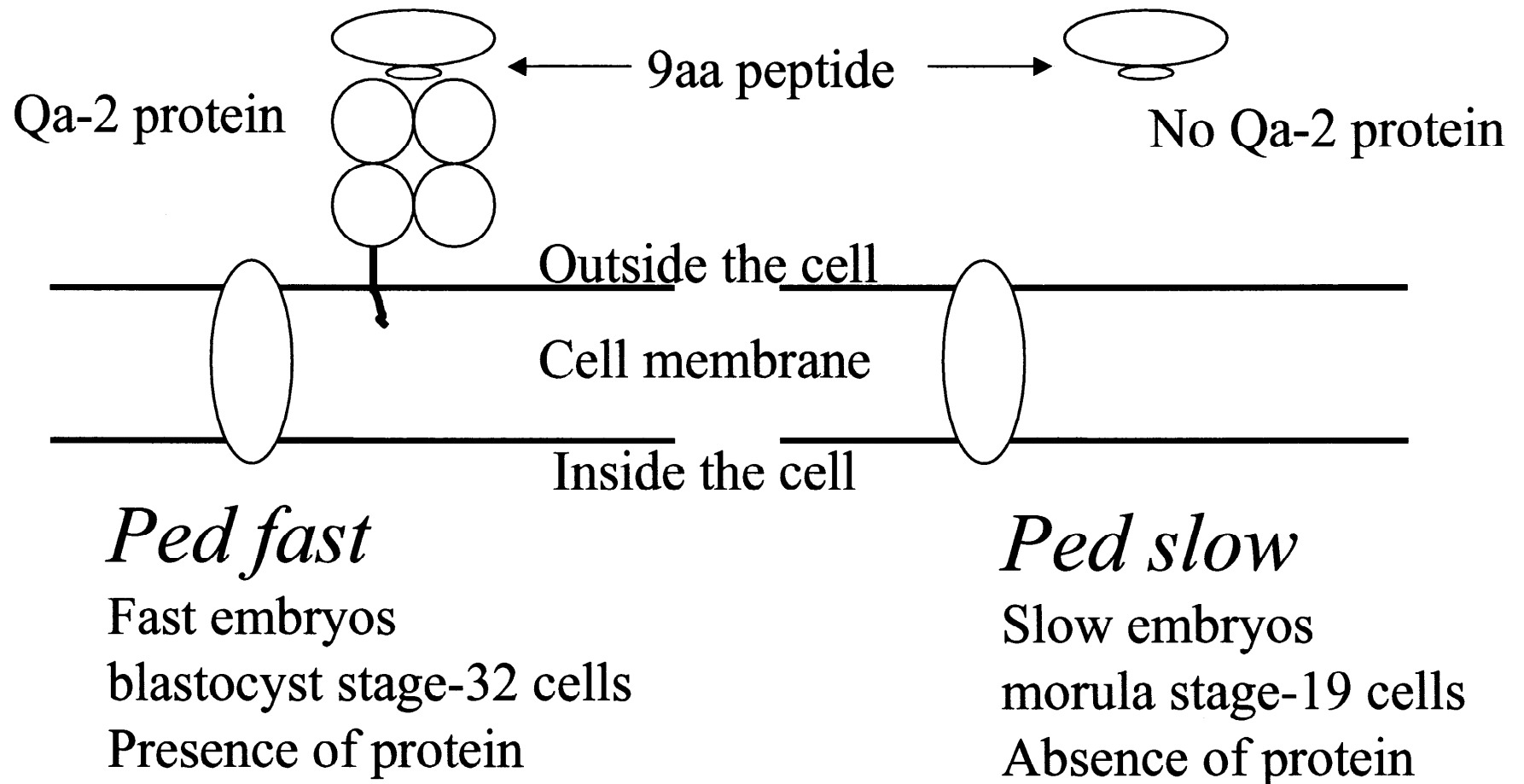
Alikani et al, 1995, 1999

PED Gene



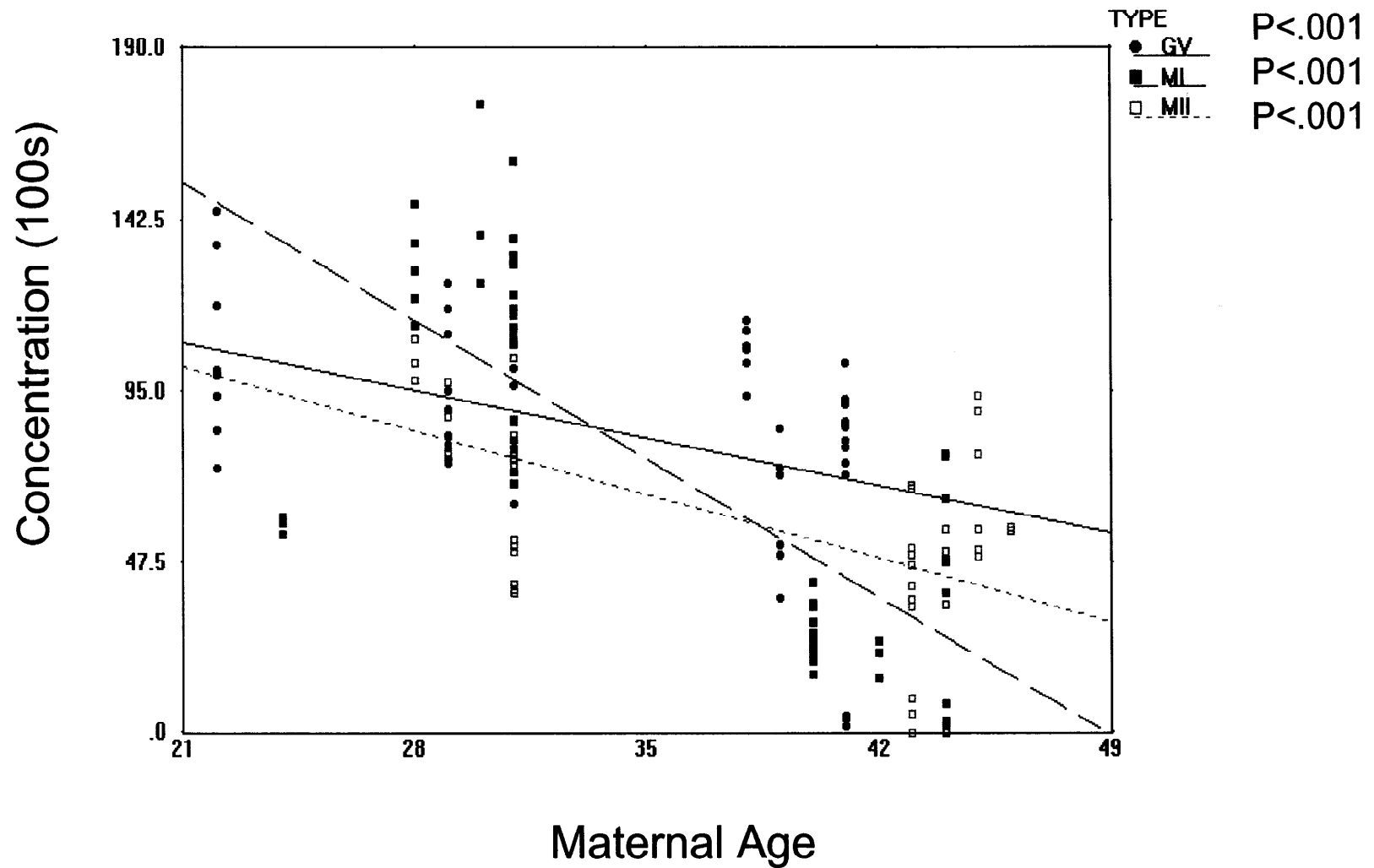


Predicted protein characteristics of the *Ped fast* and *Ped slow* phenotype (mouse)

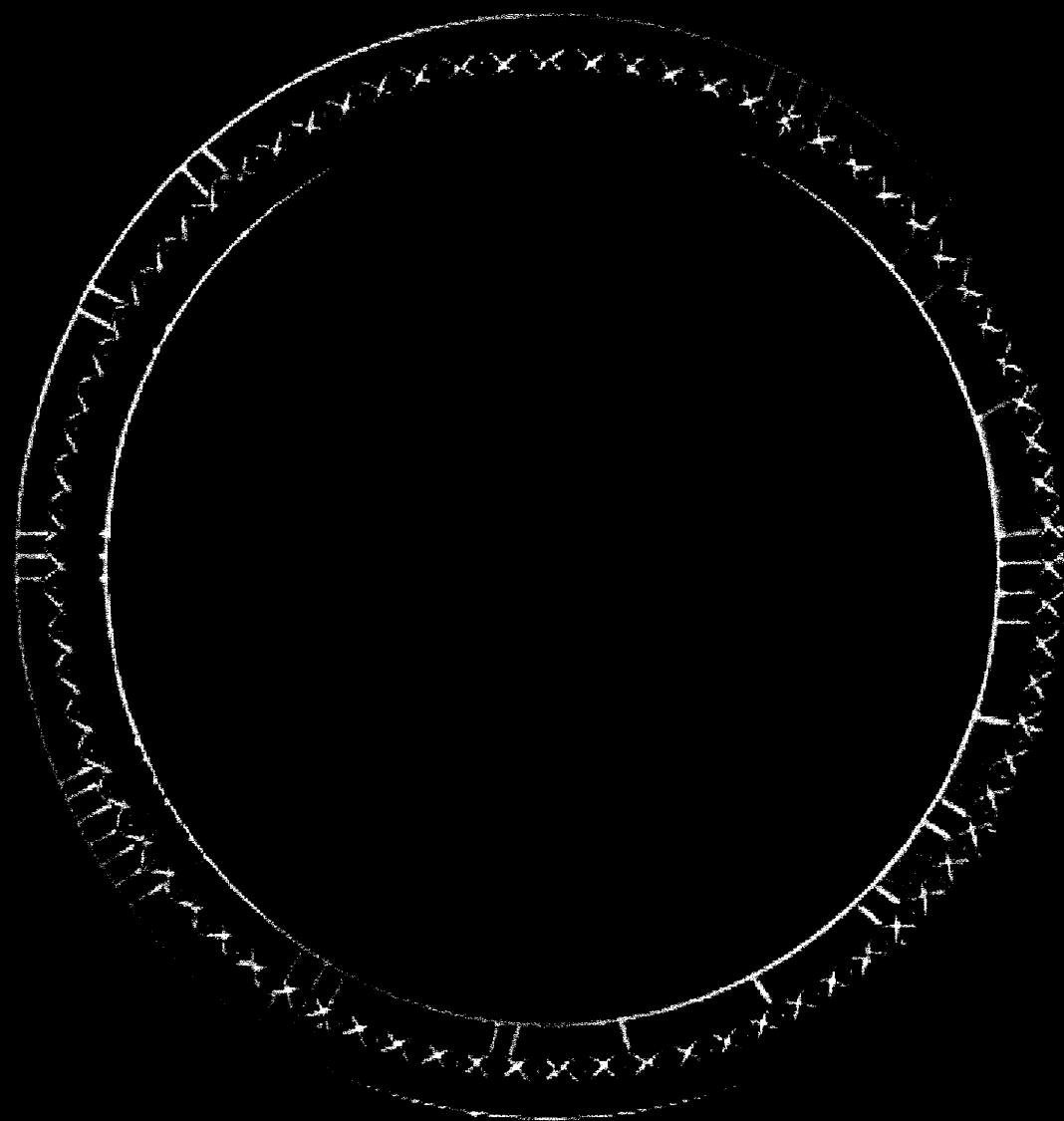


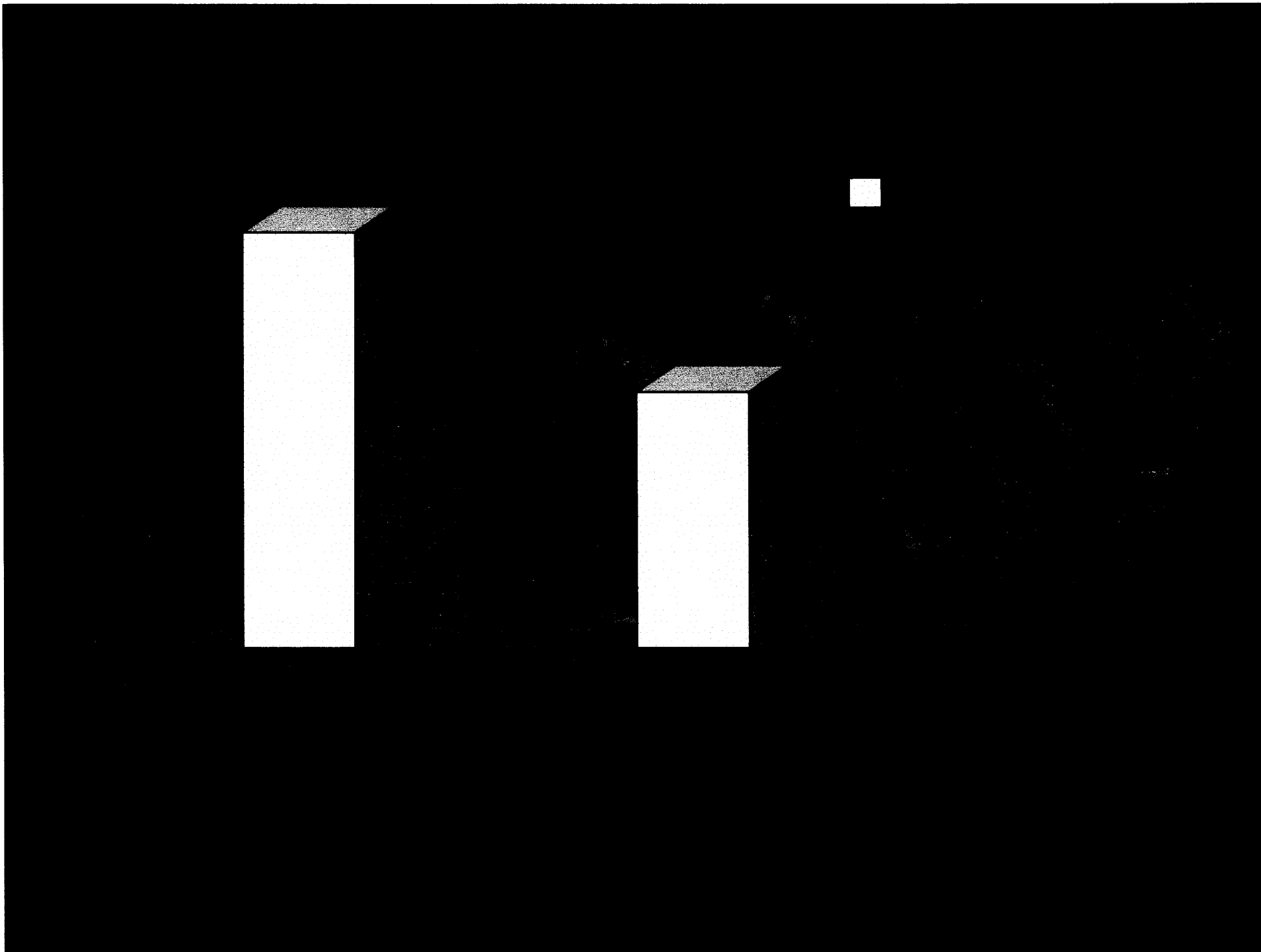
Warner et al, 1998

Mad2 mRNA Concentration in Human Oocytes versus Maternal Age

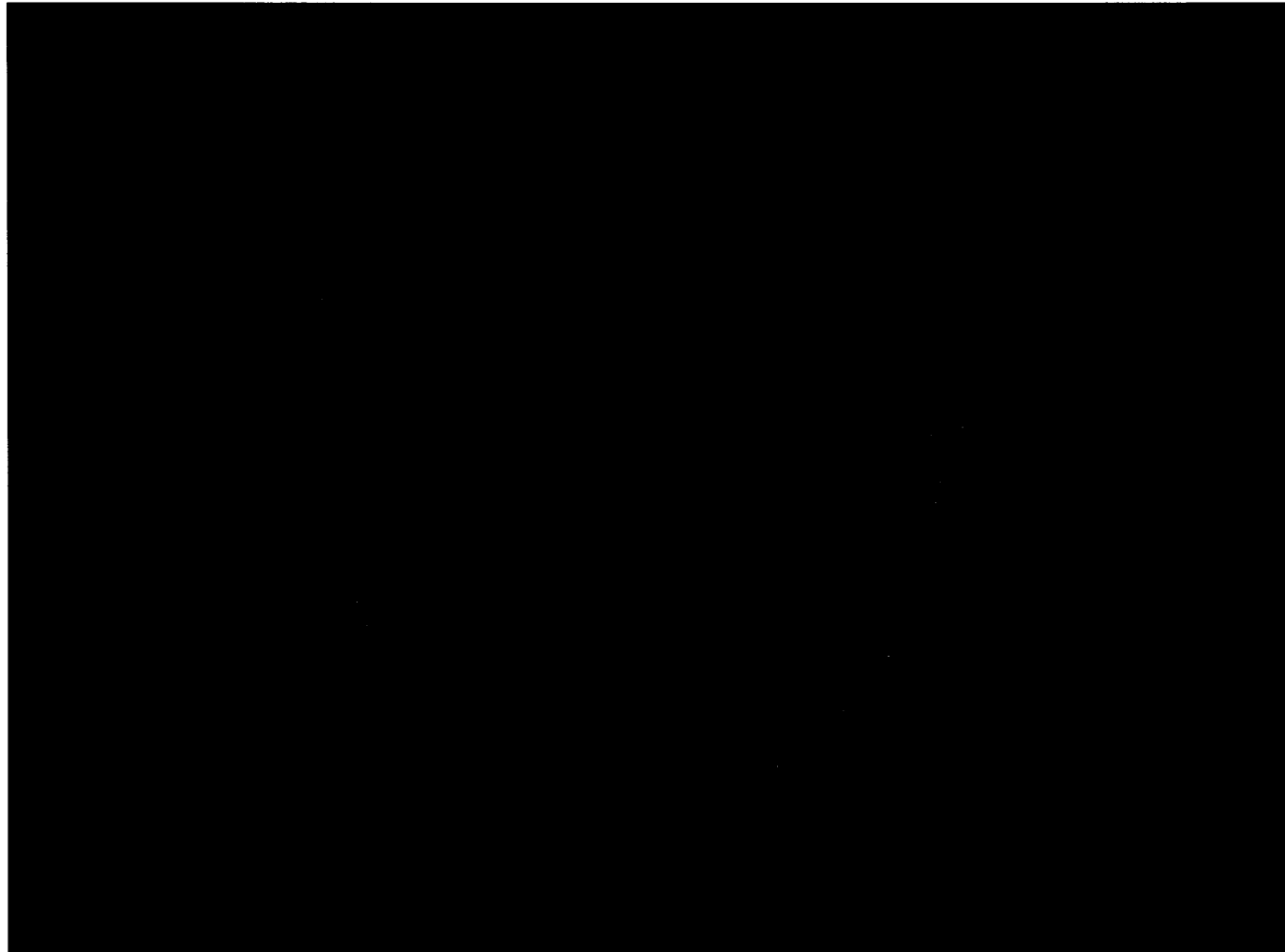




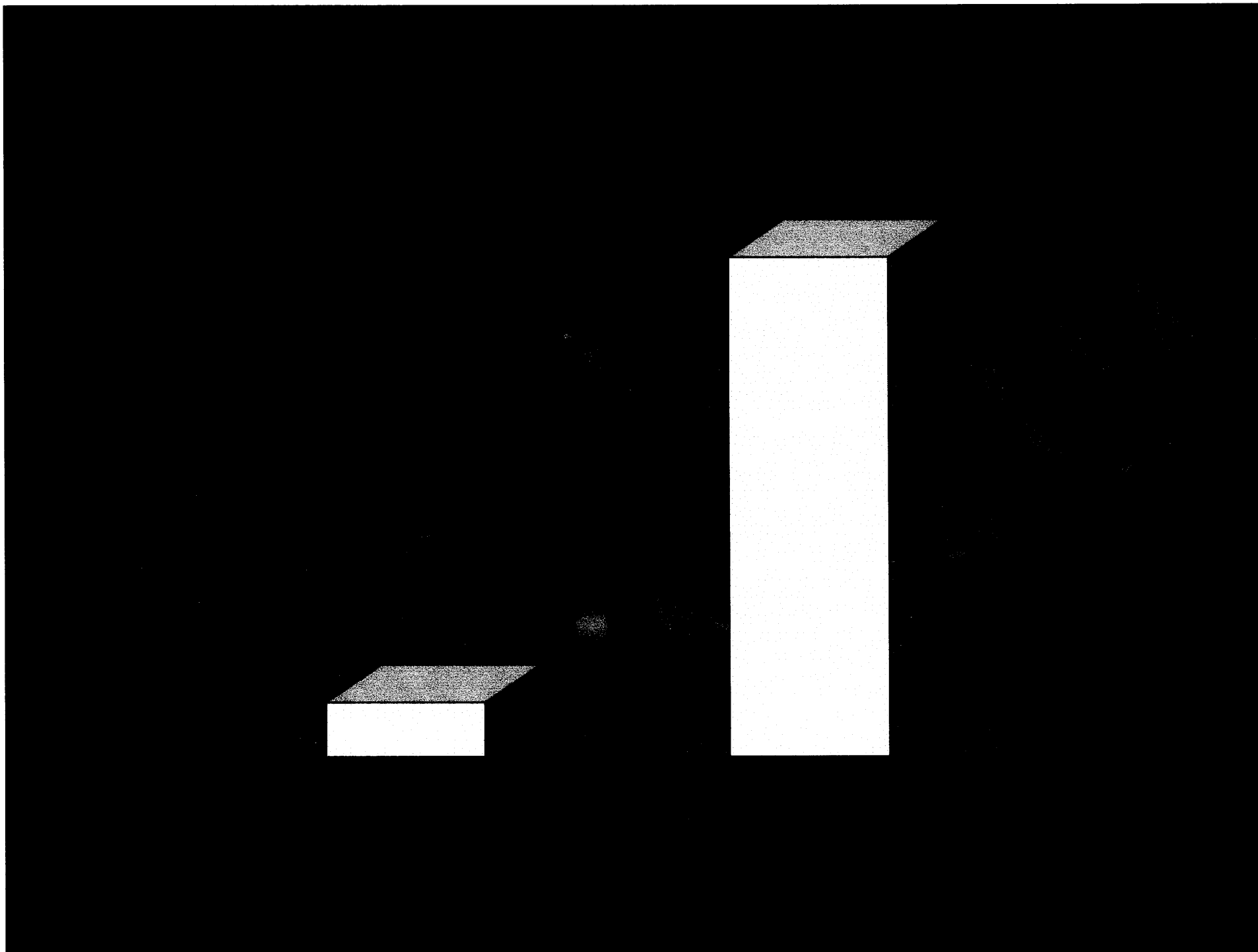


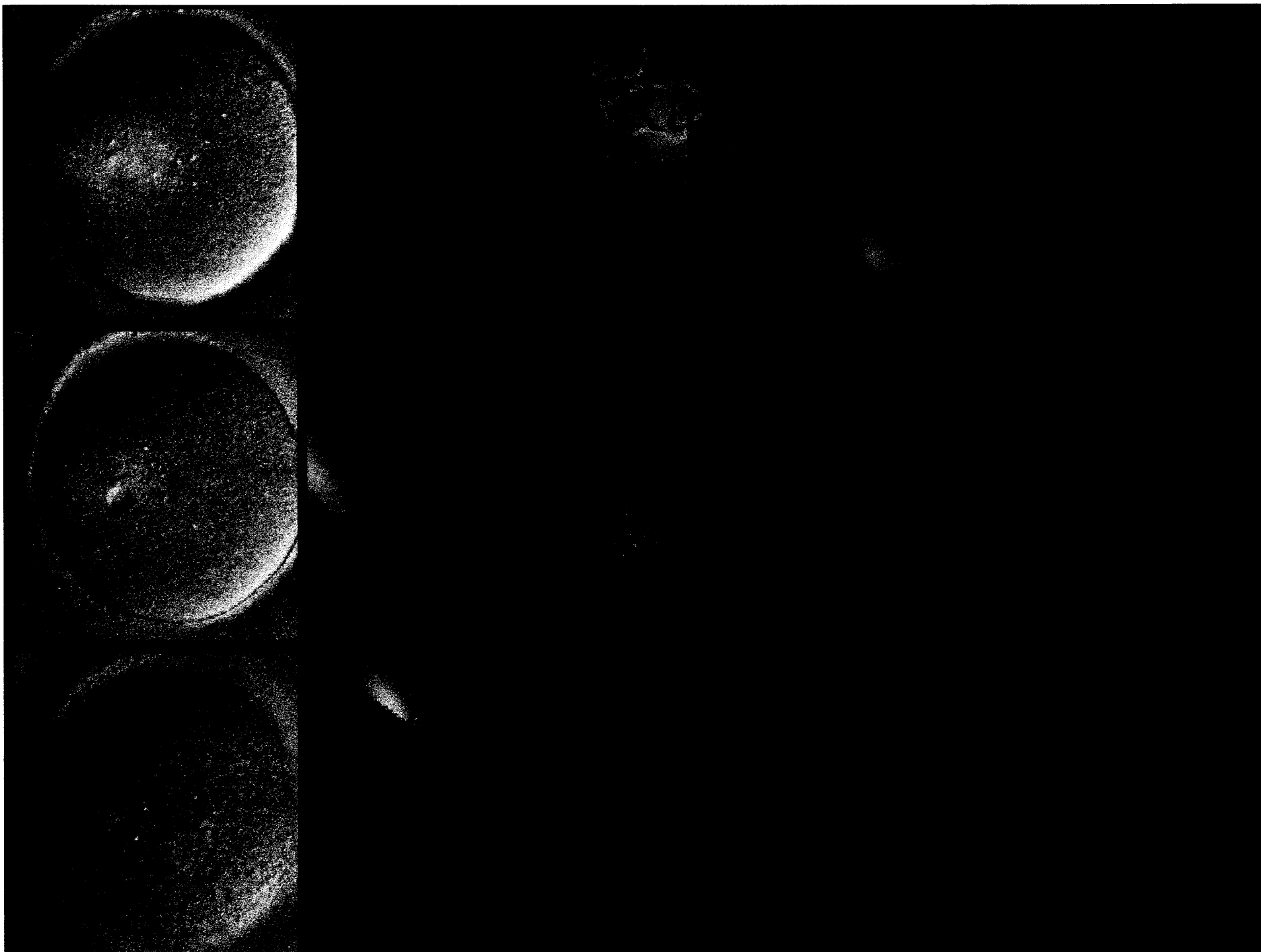


mtDNA Mutation T414G and Age

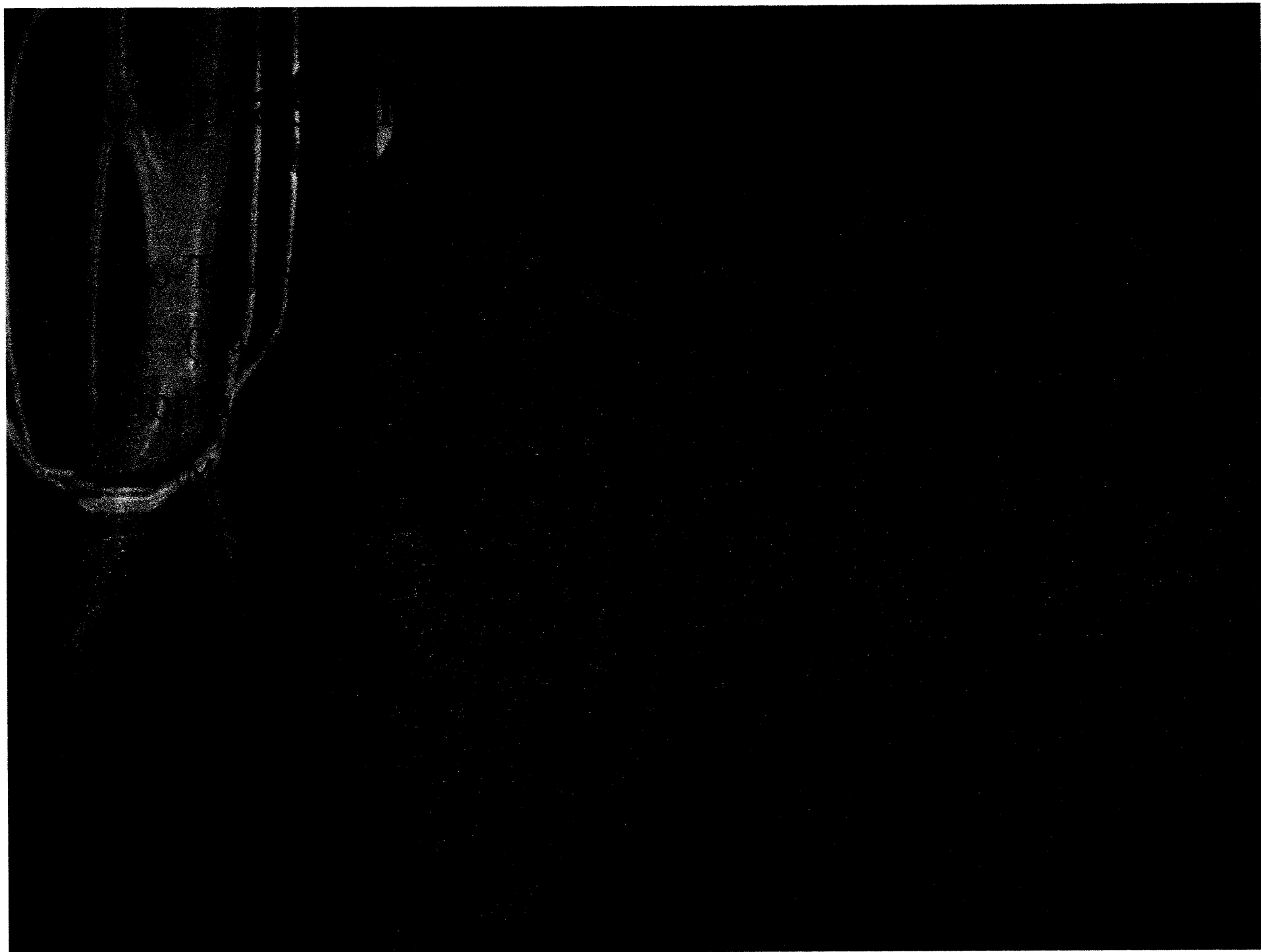


Barritt et al., Reproductive Biomedicine Online, 2001

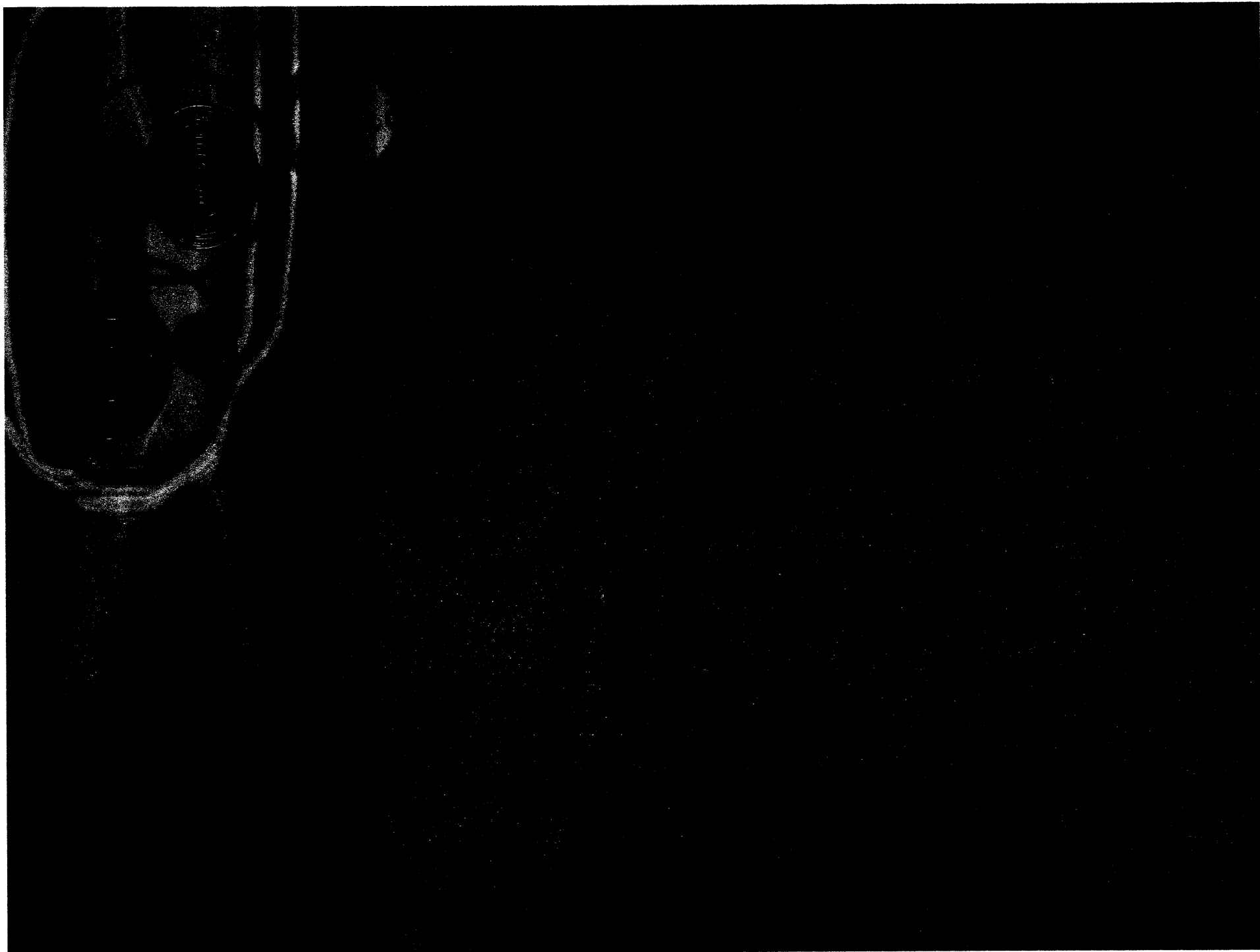






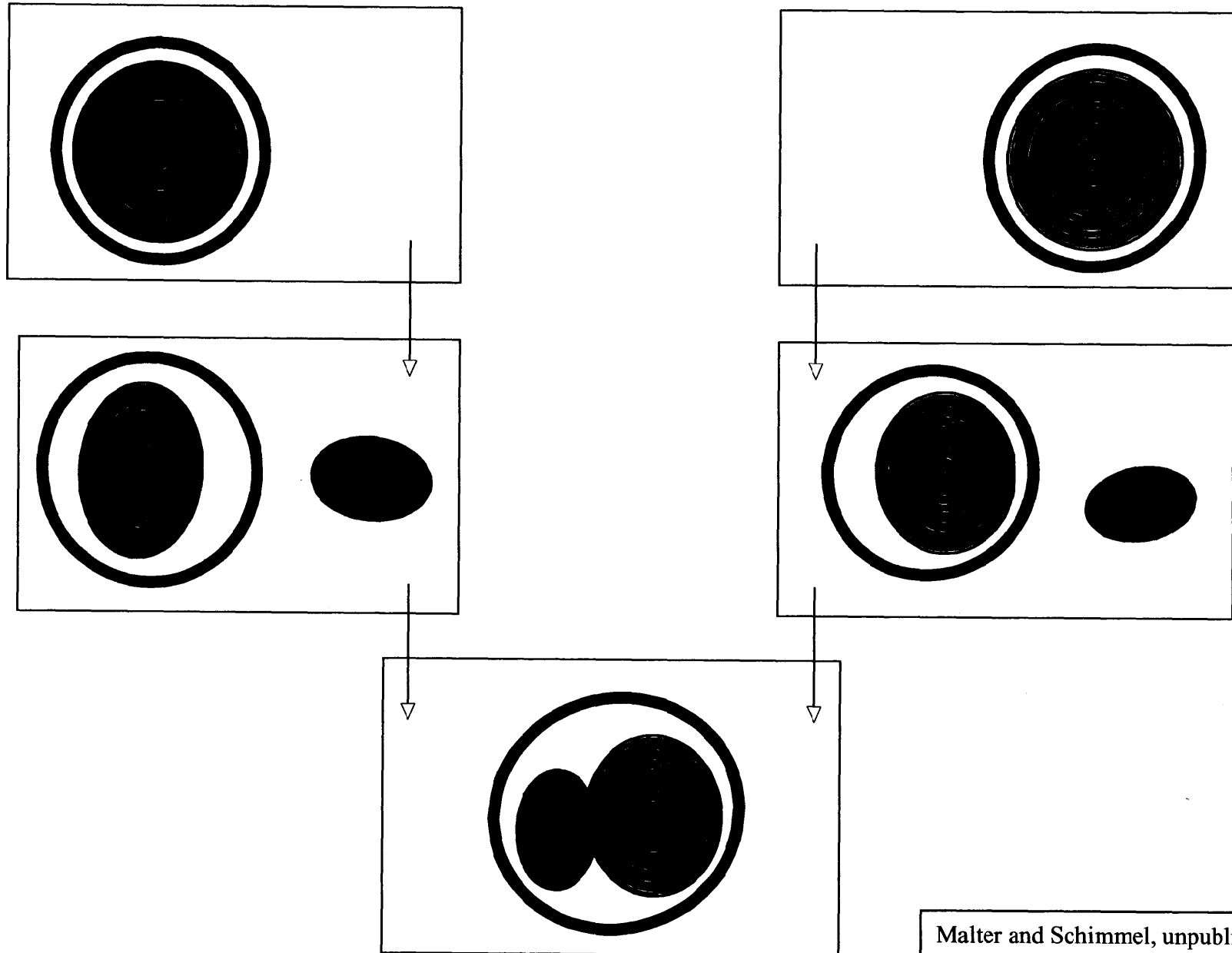








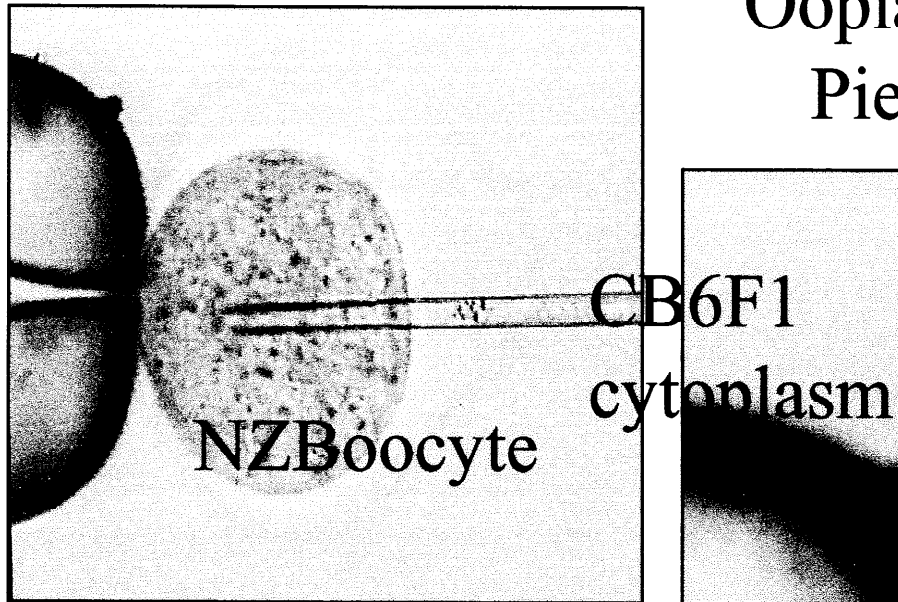
Nuclear transplantation of F1 hybrid mouse zygotes



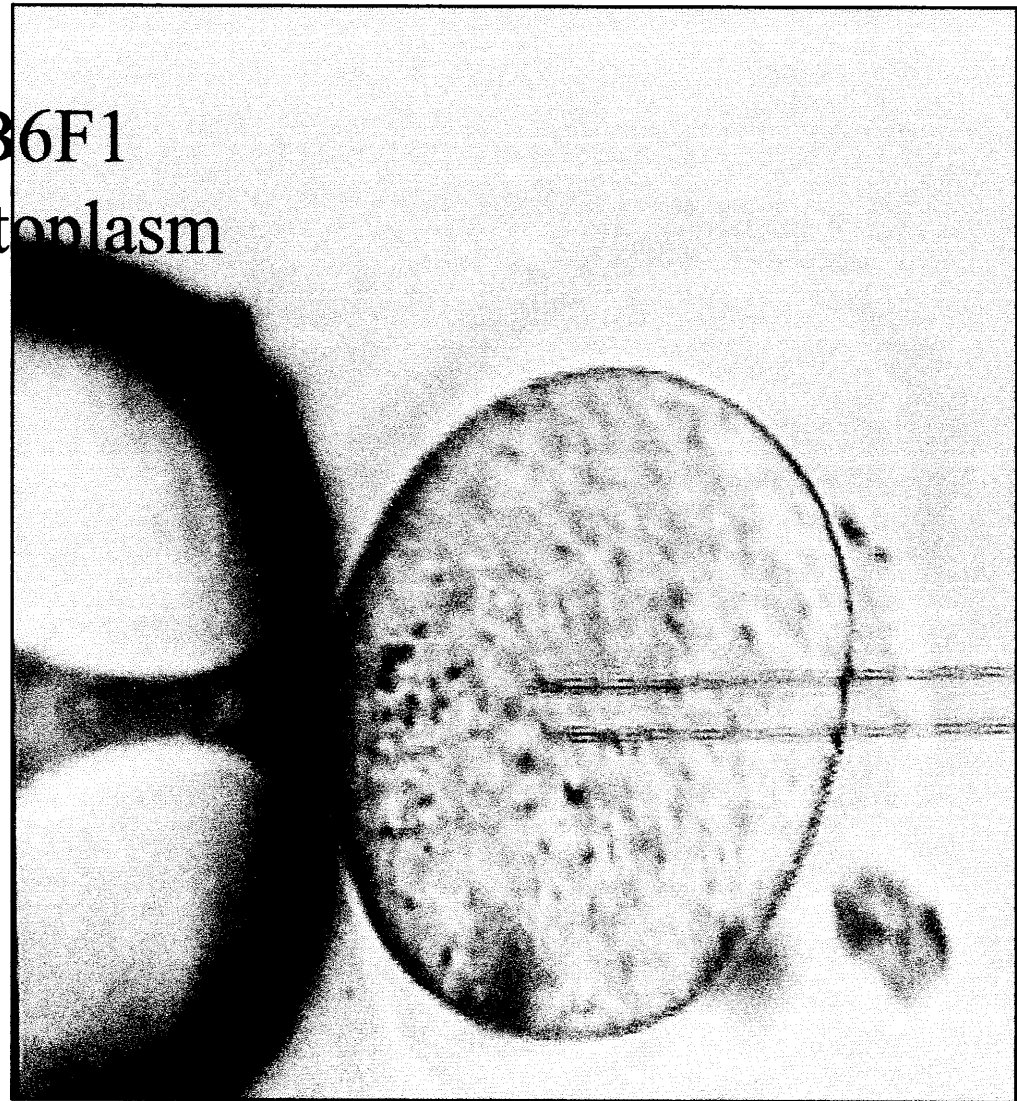
Malter and Schimmel, unpublished



Ooplasmic Transplantation By Piezo Facilitated Injection

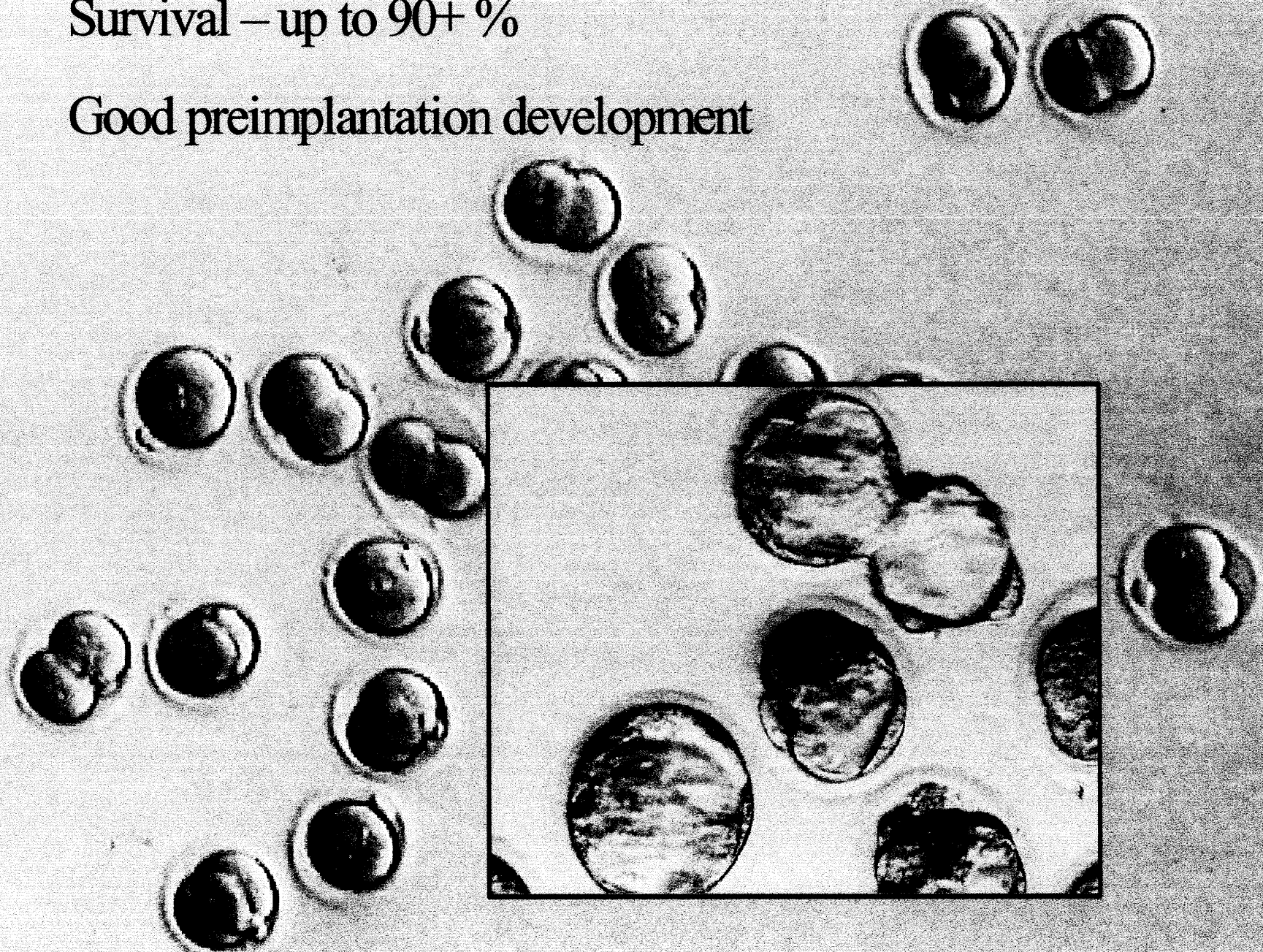


- Thinned tool
- Multiple donor aspiration
- Similar ratio to human procedure



Survival – up to 90+ %

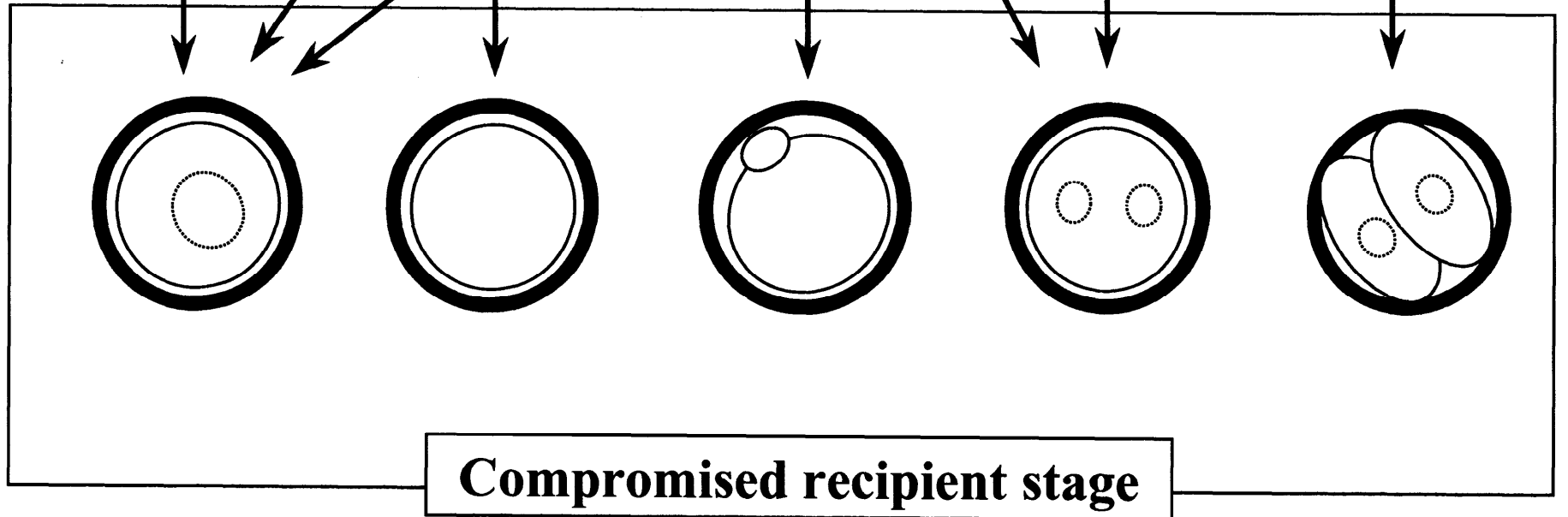
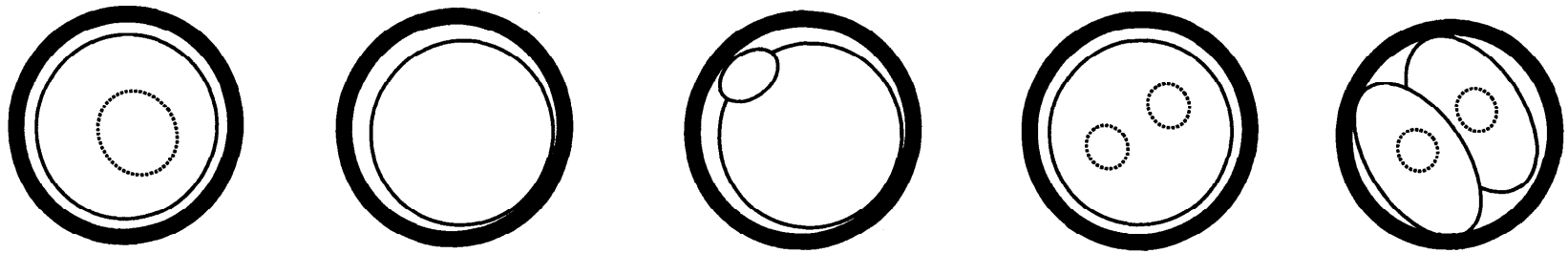
Good preimplantation development





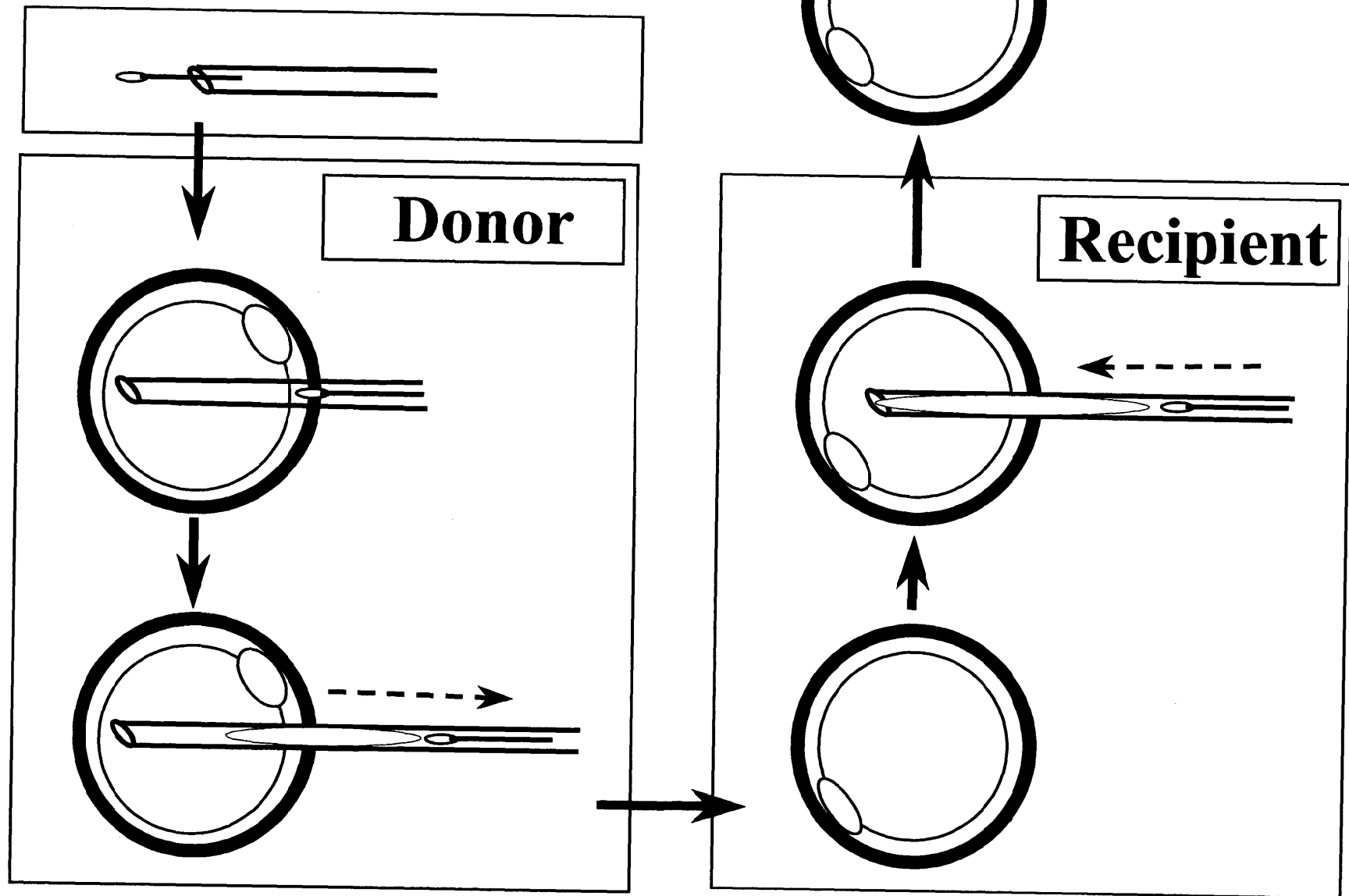


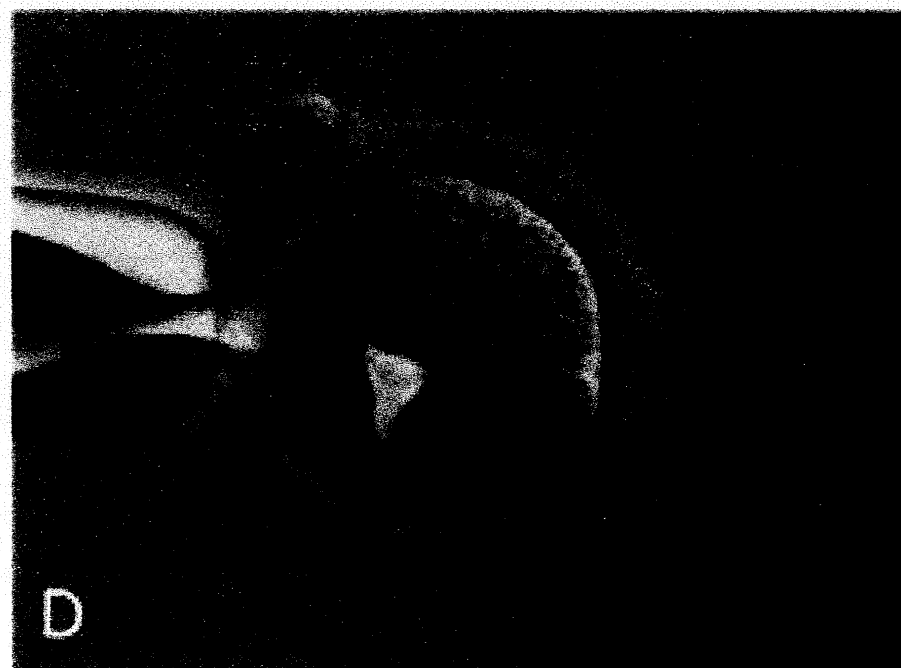
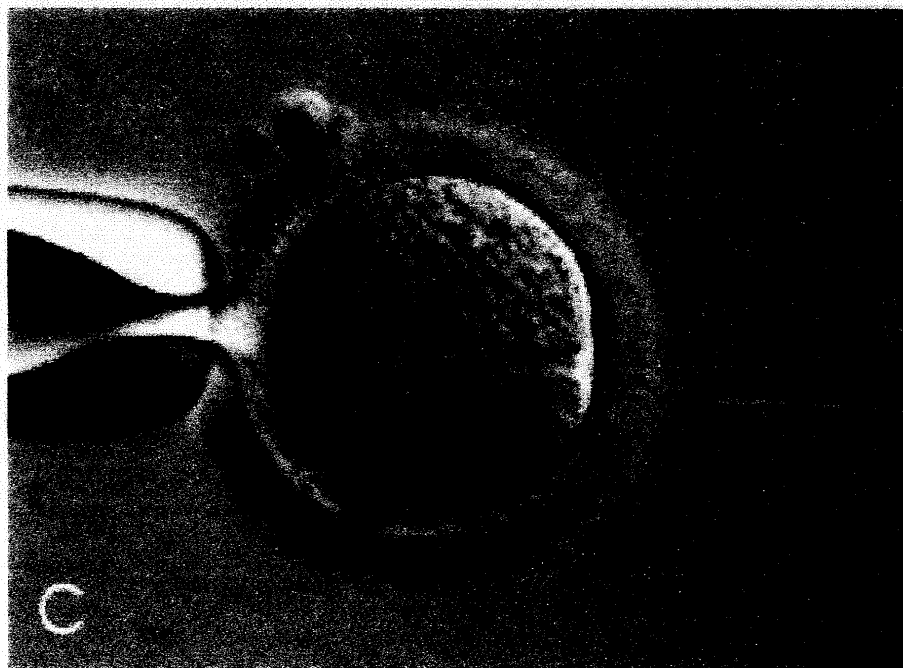
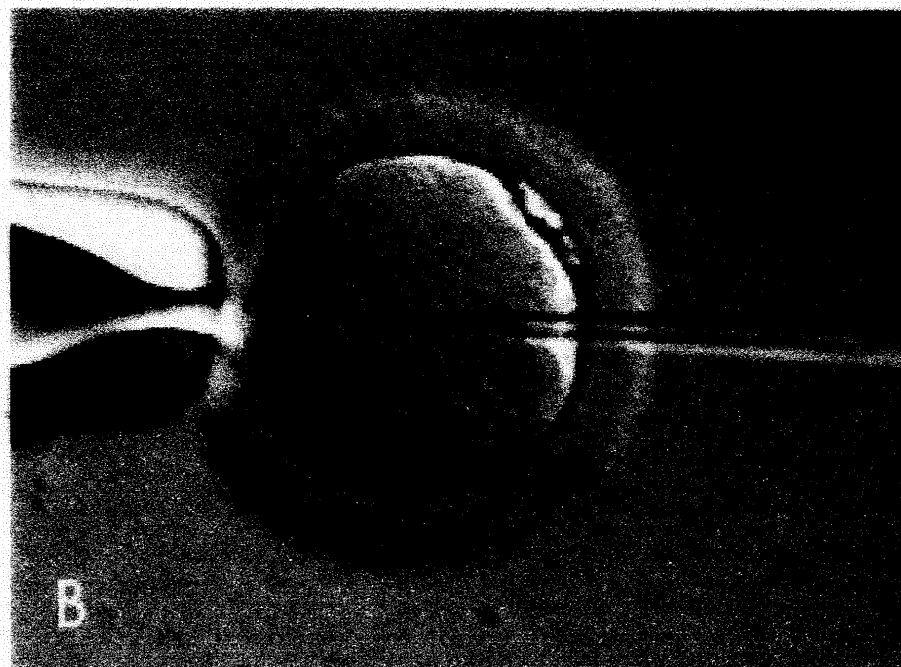
Normal donor stage

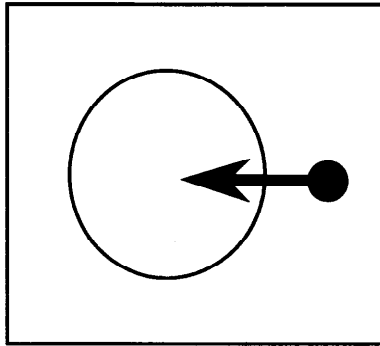


Compromised recipient stage

Ooplasmic donation by injection





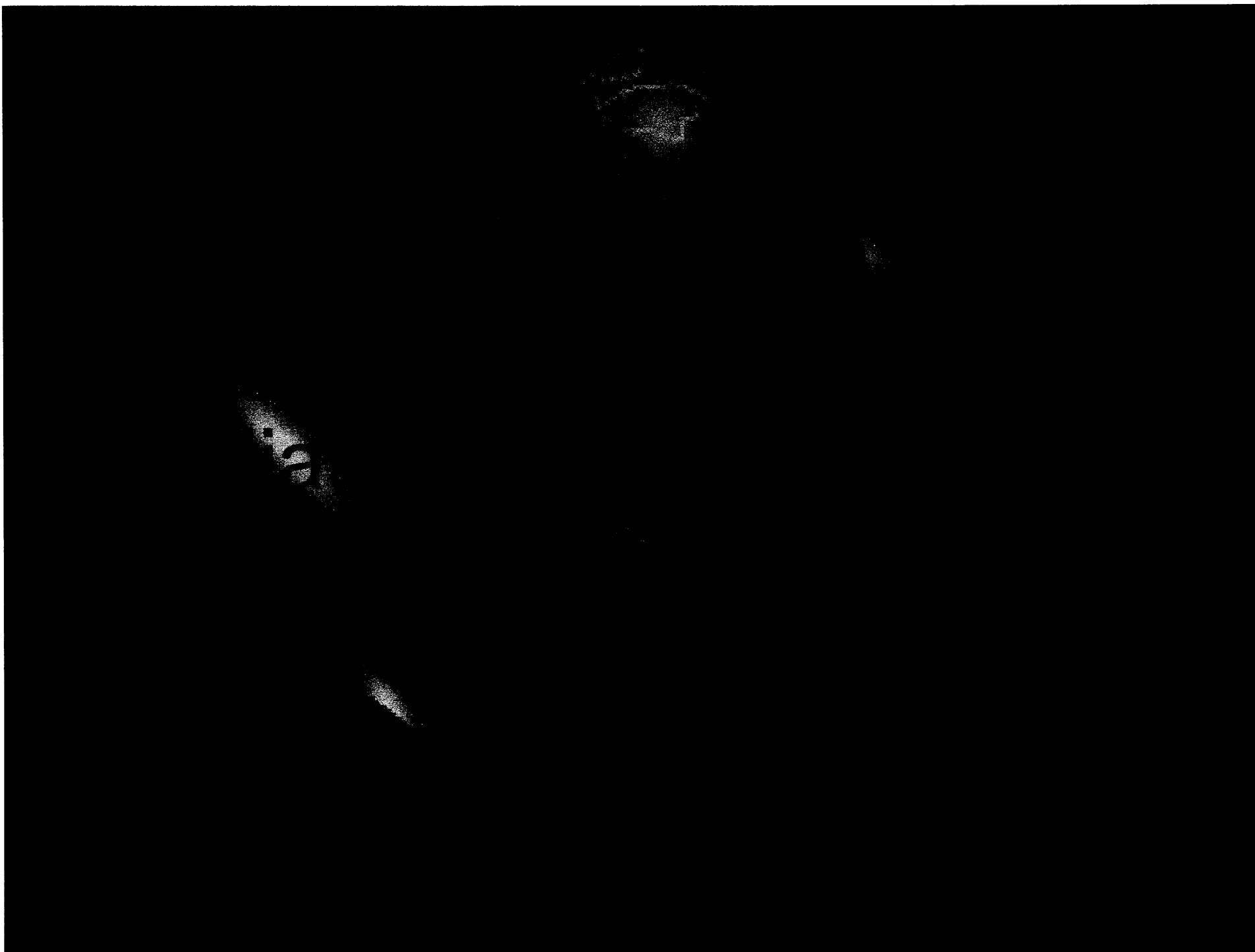


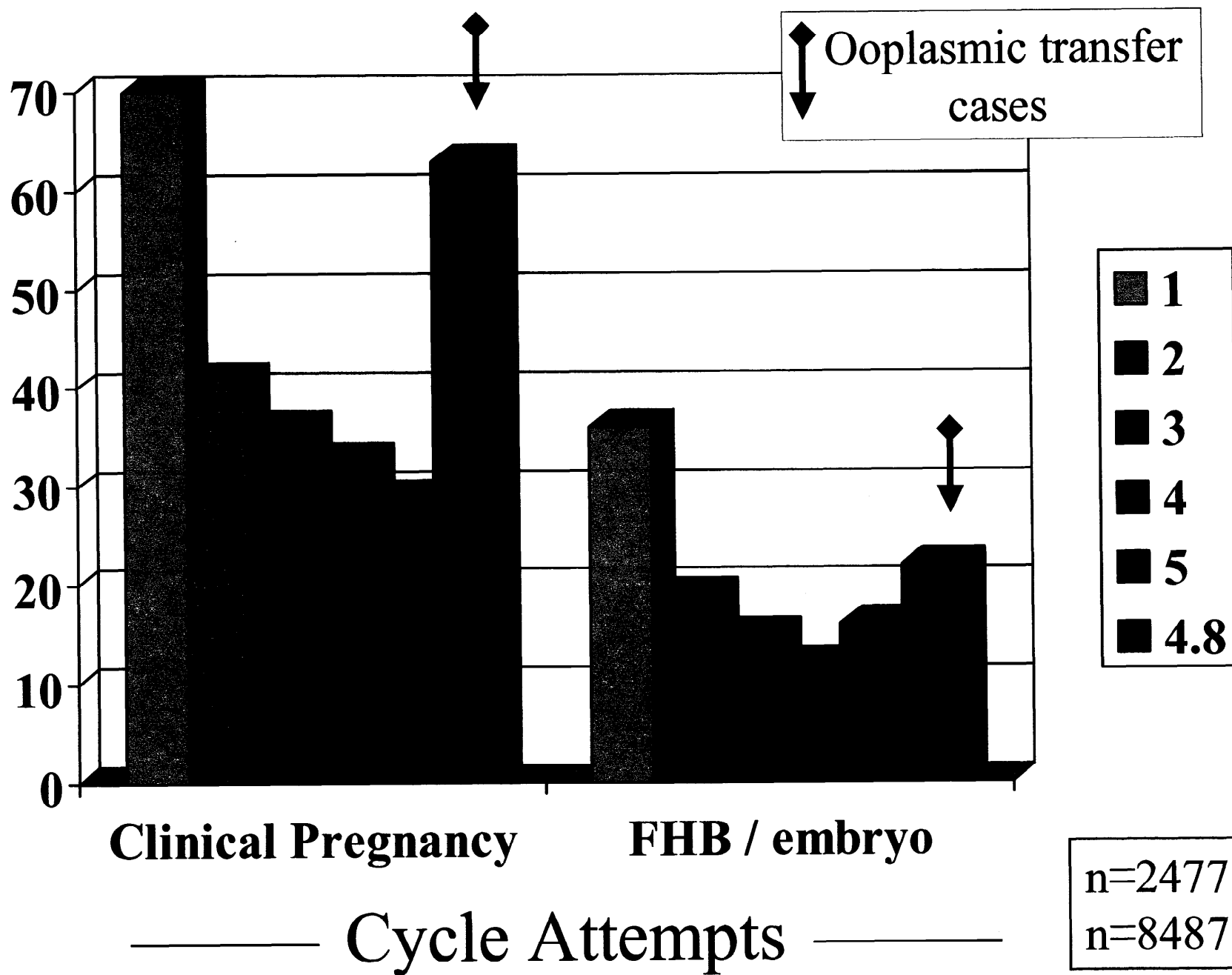
Ooplasmic Transfer by injection

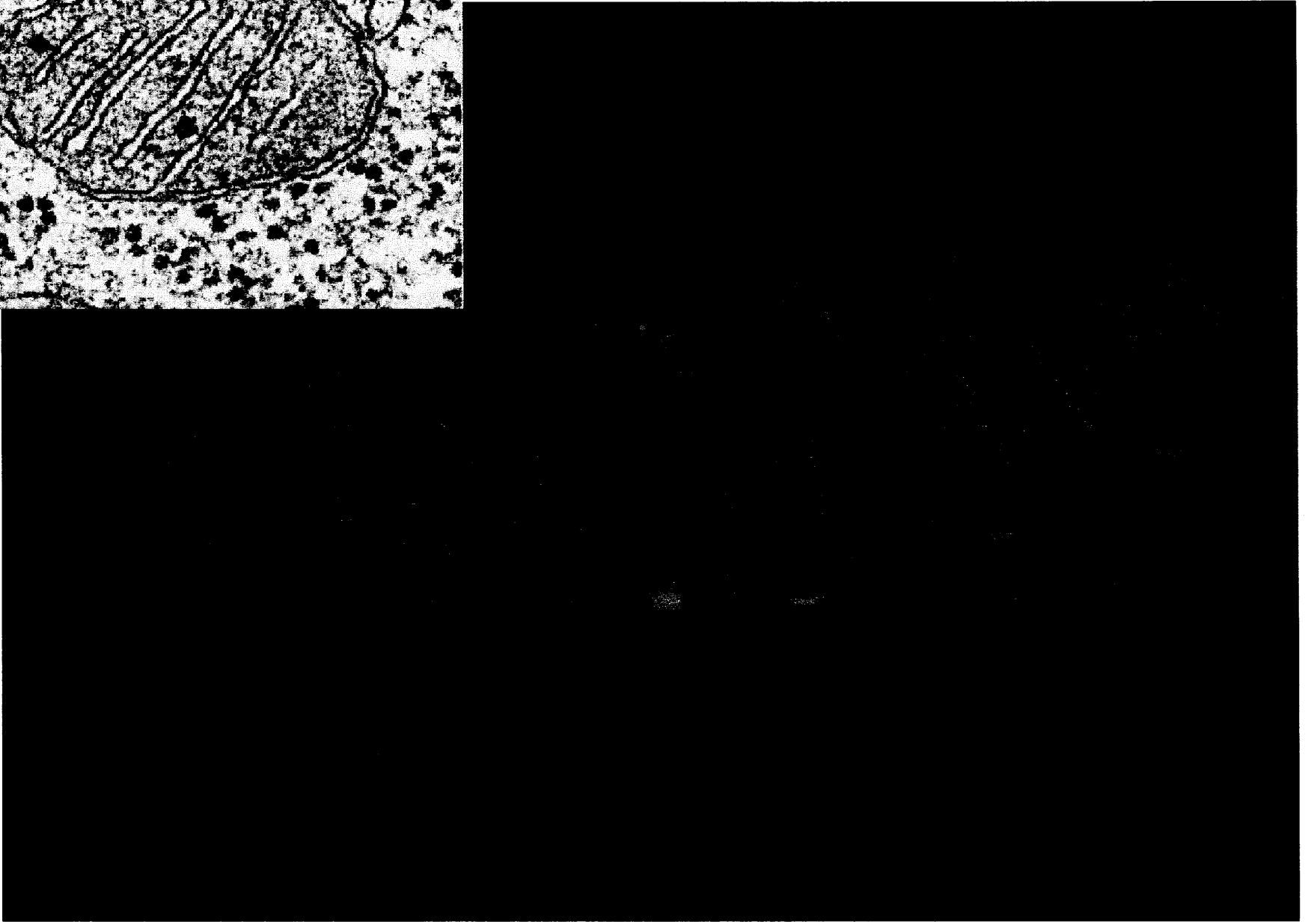
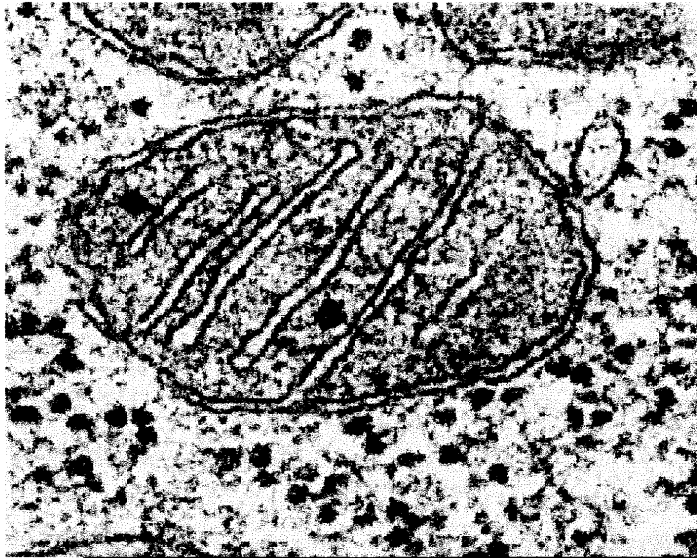
- 28 patients (33 cycles): egg donation candidates
- Recurrent implantation failure (RIF)
- Recurrent poor embryo morphology
- 9 male factors
- 5 with repeated miscarriages

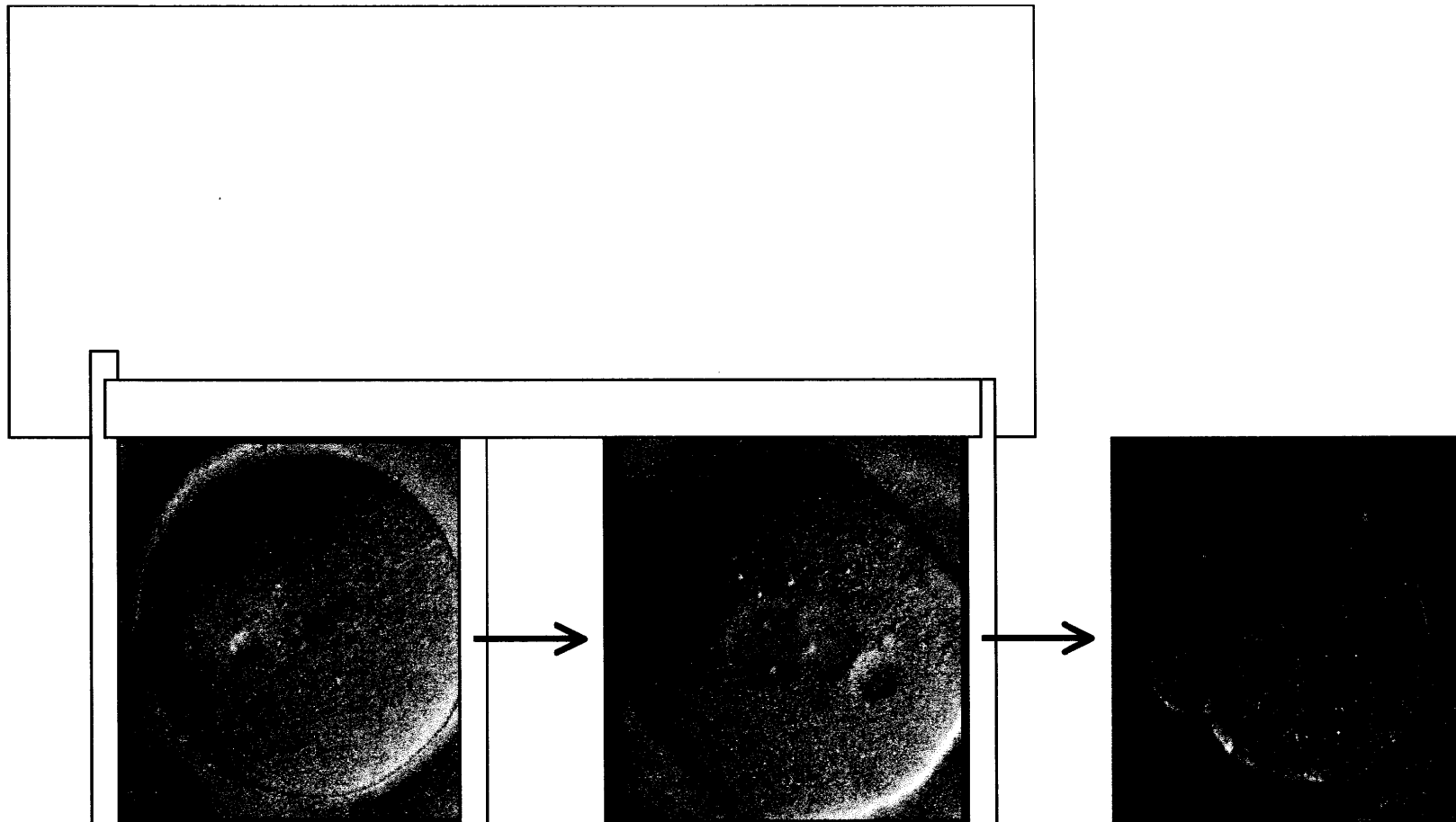
June 2001



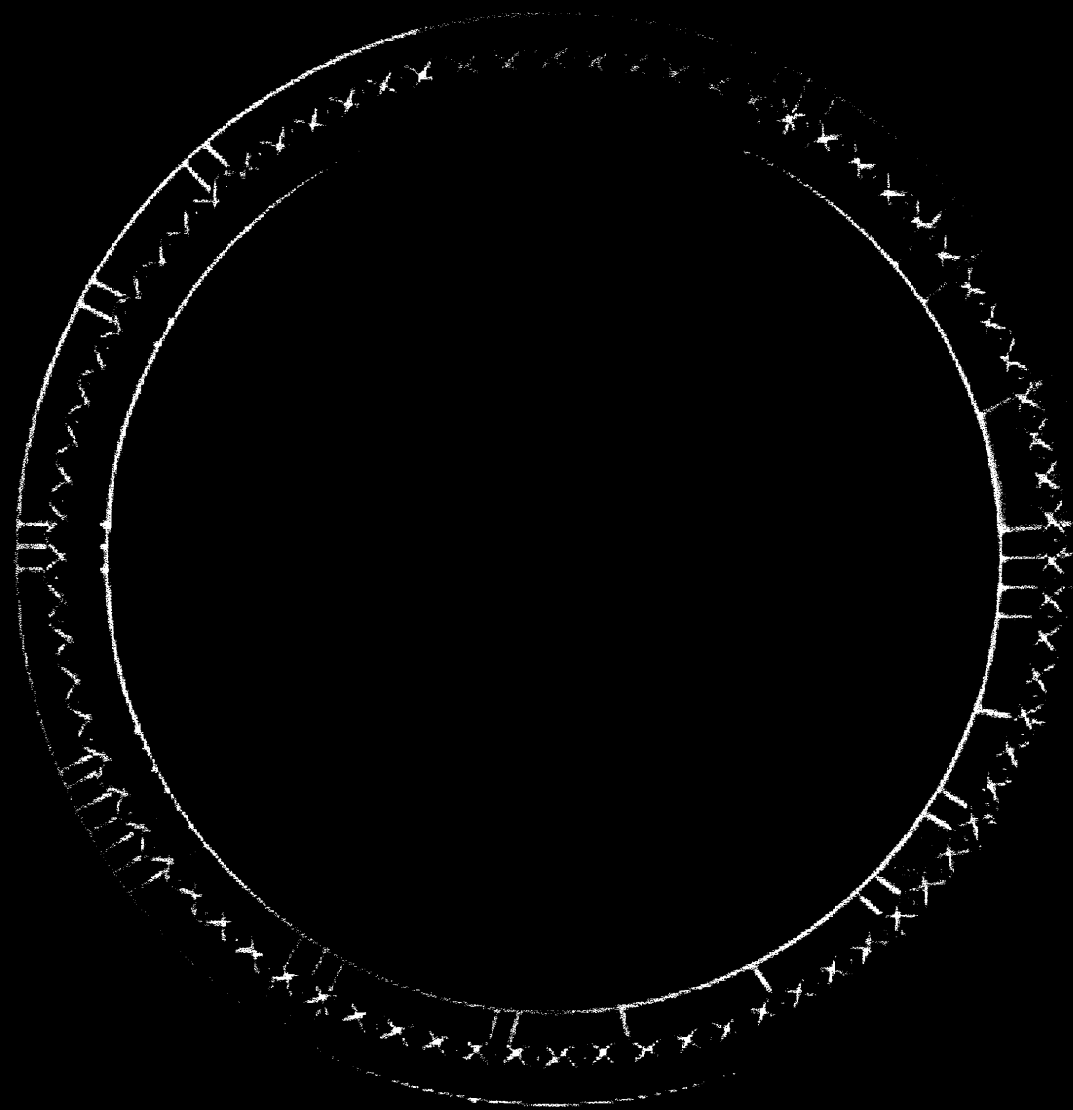


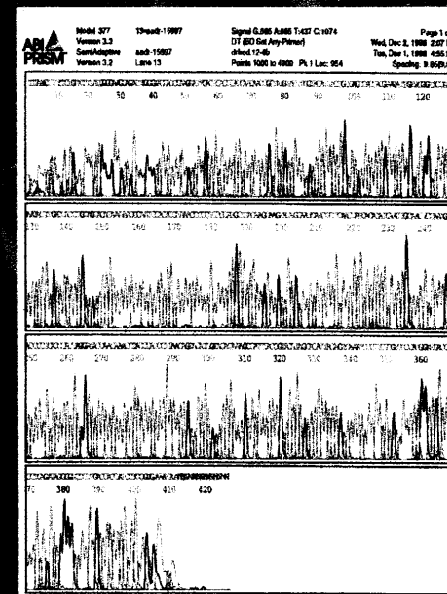
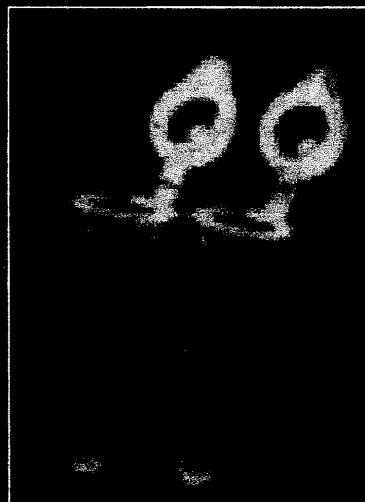
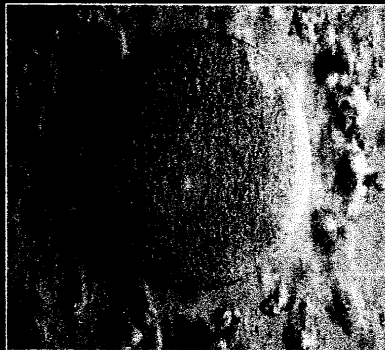




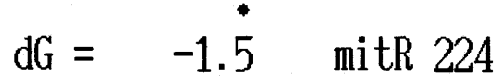


Barritt et al, 2001









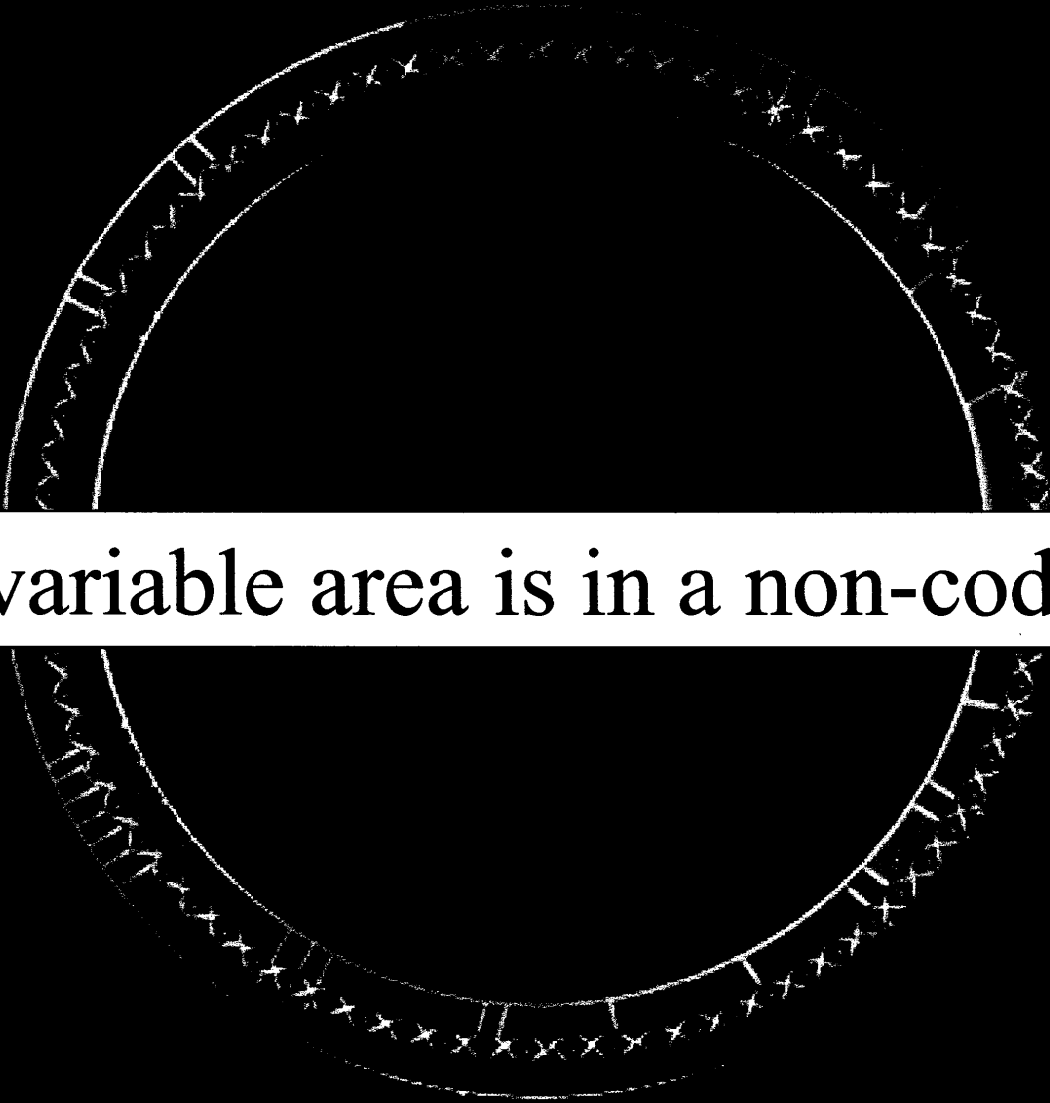
Molecular Beacon for Recipient 16224 mt DNA

A high-contrast, black and white microscopic image of cells, likely oocytes or embryos, showing their circular shapes and internal granular texture. The cells are positioned on the left side of the frame, with a dark, indistinct background on the right.

“Germ-line Genetic Modification”

Mitochondrial diversity in the
hyper-variable area occurs in 10-
15% of 'normal' humans

Tully et al, 2000
Wilson et al, 1997



Hyper-variable area is in a non-coding region

No known cases of
mitochondrial disease
after.....egg donation

